

 Quality Tools for Smart Cleaning	<h1 style="margin: 0;">SAFETY DATA SHEET</h1> <h2 style="margin: 0;">Unger Liquid/Gel UG (EU / EN)</h2>	 Quality Tools for Smart Cleaning
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SDS according to Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Annex II-EU

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

Date issued 12.08.2015

### 1.1. Product identifier

Product name Unger Liquid/Gel UG (EU / EN)  
 Article no. Liquid: FR100/FR500; 85542D/855421/85542G. Gel: FG050.

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Function Detergent  
 Product group Cleaning agents  
 Use of the substance/preparation Glass Cleaner - Non-Aerosol  
 Uses advised against No specific uses advised against are identified.  
 The chemical can be used by the general public Yes

### 1.3. Details of the supplier of the safety data sheet

Company name Unger Germany GmbH  
 Postal address Piepersberg 44  
 Postcode D-42653  
 City Solingen  
 Country Germany  
 Tel +49 (0) 212 2207 0  
 Fax +49 (0) 212 2207 222  
 E-mail compliance@unger-europe.com  
 Website http://www.ungerglobal.com

### 1.4. Emergency telephone number

Emergency telephone Business hours: Monday to Thursday 8 am - 5 pm, Friday 8 am - 4 pm: +49 (0) 212 22 07 0

## SECTION 2: Hazards identification

### 2.1. Classification of substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS] Eye Irrit. 2; H319

### 2.2. Label elements

#### Hazard Pictograms (CLP)



Signal word Warning  
 Hazard statements H319 Causes serious eye irritation.  
 Precautionary statements P101 If medical advice is needed, have product container or label at hand.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P405 Store locked up.

### 2.3. Other hazards

Physico-chemical effects	Cf. section 9 for physical-chemical information.
Health effect	May be harmful if swallowed. May irritate eyes and skin.
Environmental effects	Cf. section 12 for information on ecology.
Symptoms and effects of potential misuse	No information required.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

Substance	Identification	Classification	Contents
Fatty alcohol ethoxylate (EU)	CAS no.: 68439-50-9 EC no.: 500-213-3 Registration number: 01-2119487984-16 Synonyms: Alcohols, C12-C14, ethoxylated IUPAC name: Alcohols, C12-C14 (even numbered), ethoxylated	Acute tox. 4; H302 Eye Dam. 1; H318	1 < 5 % wt/wt
Ethanol (EU)	CAS no.: 64-17-5 EC no.: 200-578-6 Index no.: 603-002-00-5 Registration number: 01-2119457610-43 Synonyms: Ethyl alcohol IUPAC name: Ethanol	Flam. Liq. 2; H225	1 < 5 % wt/wt
Fatty acid amidoalkyl betaine (EU)	CAS no.: 61789-40-0 EC no.: 236-058-8 Synonyms: Coco amido betaine IUPAC name: 1-Propanamine, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivatives, inner hydroxides	Eye Irrit. 2; H319 Aquatic Chronic 3; H412	1 < 5 % wt/wt
Description of the mixture	Aqueous solution of organic substances. Green or blue. Non-viscous liquid or viscous gel.		

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

General	Place unconscious person on the side in the recovery position and ensure breathing can take place. If medical advice is needed, have product container or label at hand.
Inhalation	Due to the small packaging the risk of inhalation is minimal. IF INHALED: Move into fresh air and keep at rest.
Skin contact	Wash skin with soap and water.
Eye contact	Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Seek medical attention and bring along these instructions.
Ingestion	Immediately rinse mouth and drink plenty of water (200-300 ml). Do not give victim anything to drink if he is unconscious. Do NOT induce vomiting. If medical advice is needed, have product container or label at hand.

### 4.2. Most important symptoms and effects, both acute and delayed

Acute symptoms and effects Burning sensation.

### 4.3. Indication of any immediate medical attention and special treatment needed

Specific details on antidotes Decontamination, symptomatic treatment. No special antidote known.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media Product doesn't ignite. Use fire-extinguishing media appropriate for surrounding materials.

Improper extinguishing media Water jet.

### 5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards This product is not flammable.

Hazardous combustion products Carbon dioxide (CO<sub>2</sub>). Carbon monoxide (CO). Nitrous gases (NO<sub>x</sub>). Organic decomposition products.

### 5.3. Advice for firefighters

Personal protective equipment In case of inadequate ventilation wear respiratory protection. Use personal protective equipment as required.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures Avoid dust formation. Avoid contact with eyes and skin.

Personal protection measures Ensure suitable personal protection (including respiratory protection) during removal of spillages in a confined area.

Hazardous combustion products Cf. section 5

#### 6.1.2. For emergency responders

For emergency responders In case of inadequate ventilation wear respiratory protection. Use personal protective equipment as required.

### 6.2. Environmental precautions

Environmental precautionary measures Avoid discharge into drains, water courses or onto the ground.

### 6.3. Methods and material for containment and cleaning up

Cleaning method Absorb spillage with non-combustible, absorbent material. Sweep-up or pick-up with an industrial vacuum cleaner, store in closed container for disposal.

### 6.4. Reference to other sections

Other instructions Cf. section 8 for personal protection, and section 13 for waste disposal.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Handling Observe good chemical hygiene practices. Avoid contact with eyes and prolonged skin contact. Avoid eating, drinking and smoking when using the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage Store at moderate temperatures in dry, well ventilated area.

#### Conditions for safe storage

Requirements for storage rooms and vessels Storage in gateways, passages, stairways, hallways open to public, roofs, attics, cellars and work-rooms is not admissible.

Advice on storage compatibility No incompatibilities known.

### 7.3. Specific end use(s)

Recommendations cf. section 1.2

#### Specific end users

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational Exposure limit values

Substance	Identification	Value	TWA Year
Ethanol	CAS no.: 64-17-5 EC no.: 200-578-6 Index no.: 603-002-00-5 Registration number: 01-2119457610-43 Synonyms: Ethyl alcohol	8-hour TWA: 1920 mg/m <sup>3</sup> WEL Workplace Exposure Limit Guidance Note EH40 – Occupational Exposure Limits (U.K.)	

#### DNEL / PNEC

Recommended monitoring procedures	DFG Air Analysis: Method Nr. 6 Solvent mixtures. MétroPol Fiche 017: Alcool éthylique.
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### 8.2. Exposure controls

#### Precautionary measures to prevent exposure

Organisational measures to prevent exposure	Thoroughly clean hands, forearms, and face after handling of the product, before eating, drinking and lavatory use, and at the end of the work shift.
Technical measures to prevent exposure	Use engineering controls to reduce air contamination to permissible exposure level.

#### Respiratory protection

Respiratory protection	Under normal conditions of use respiration protection should not be required. In case of inadequate ventilation or when the product is heated, use suitable respiratory equipment with gas filter (type A2).
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#### Hand protection

Hand protection	For prolonged or repeated skin contact use suitable protective gloves.
Reference to relevant standard	On basis of test data.
Suitable materials	Gloves of nitrile rubber, PVA or Viton are recommended.
Unsuitable materials	Leather or textile.
Breakthrough time	>480 min
Thickness of glove material	0,4 mm

#### Eye / face protection

Eye protection	Wear approved, tight fitting safety glasses where splashing is probable.
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#### Skin protection

Skin protection (except hands)	Generally regular work clothing sufficient.
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#### Hygiene / Environmental

Specific hygiene measures	No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals. When using do not eat, drink or smoke. Wash at the end of each work shift and before eating, smoking and using the toilet.
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## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	Non-viscous liquid or viscous gel.
Colour	Green or blue.
Odour	Fresh.
Comments, pH (as supplied)	No data recorded.
pH (aqueous solution)	Value: 6,7
Comments, Boiling point / boiling range	No data recorded.
Comments, Flash point	No data recorded.

Comments, Evaporation rate	No data recorded.
Flammability (solid, gas)	No data recorded.
Comments, Vapour pressure	No data recorded.
Comments, Vapour density	No data recorded.
Density	Value: 1,006 g/ml
Solubility in water	Unlimited miscible
Comments, Decomposition temperature	No data recorded.
Comments, Viscosity	No data recorded.
Explosive properties	Not explosive
Oxidising properties	Not oxidizing

## 9.2. Other information

Softening point	Comments: No data available
Content Of Voc	Comments: No data available

## Physical hazards

Comments, Particle size	No data recorded.
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity	Stable in normal conditions.
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### 10.2. Chemical stability

Stability	Stable under normal temperature conditions and recommended use.
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### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	No hazardous reactions under regular storage and handlings conditions known.
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### 10.4. Conditions to avoid

Conditions to avoid	Heating.
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### 10.5. Incompatible materials

Materials to avoid	Strong acids.
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### 10.6. Hazardous decomposition products

Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Organic decomposition products.
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## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Toxicological data for substances

Substance	Fatty alcohol ethoxylate (EU)
LD50 oral	Value: 200-2000 mg/kg bw Animal test species: rat

#### Potential acute effects

Inhalation	No specific health warnings noted. Dust may irritate respiratory system.
Skin contact	No specific health warnings noted. Dust has an irritating effect on moist skin. Prolonged contact may cause redness and irritation.
Eye contact	No specific health warnings noted. Prolonged contact may cause redness and/or tearing. Causes serious eye irritation.
Ingestion	No specific health warnings noted. The product causes irritation of mucous membranes and may cause abdominal discomfort if swallowed. Ingestion may cause irritation of the gastrointestinal tract, vomiting and diarrhoea.
Aspiration hazard	No data recorded.
Eye damage or irritation, test results	Toxicity type: Eye damage Method: OECD Guideline 437 / EU Method B.47 / Bovine Corneal Opacity and Permeability (BCOP Test)

Species: In-vitro test on bovine cornea (*Bos primigenius taurus*)  
 Test reference: Incubation time: 10 minutes at 32+-1°C  
 Negative control: 0.9% sodium chloride solution  
 Positive control: dimethyl formamide (DMF)  
 Comments: Negative control: IVIS -0,011  
 Positive control: IVIS 59,1  
 Sample: IVIS 19,6  
 Result: negative / product is not to be classified as eye damaging, but as a precaution to be classified as eye irritating.

### Delayed effects / repeated exposure

Sensitisation	No specific health warnings noted.
STOT-single exposure	No data available, probably no subchronic toxicity
STOT-repeated exposure	No data available, probably no chronic toxicity

### Carcinogenic, Mutagenic or Reprotoxic

Carcinogenicity	No specific health warnings noted.
Mutagenicity	No specific health warnings noted.
Teratogenic properties	No specific health warnings noted.
Reproductive toxicity	No specific health warnings noted.

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Toxicological data for substances

Substance	Fatty alcohol ethoxylate (EU)
Acute aquatic, fish	Value: 1-10 mg/l Method of testing: LC50
Substance	Fatty acid amidoalkyl betaine (EU)
Acute aquatic, fish	Value: 0,16 mg/l Method of testing: NOEC Species: <i>Onchorhynchus mykiss</i>
Acute aquatic, Daphnia	Value: 0,9 mg/l Method of testing: NOEC Species: <i>Daphnia magna</i>

### 12.2. Persistence and degradability

Persistence and degradability	All organic components are considered biodegradable.
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### 12.3. Bioaccumulative potential

Bioaccumulative potential	The product is not bioaccumulating.
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### 12.4. Mobility in soil

Mobility	No data on possible environmental effects have been found.
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### 12.5. Results of PBT and vPvB assessment

PBT assessment results	This product does not contain any PBT or vPvB substances.
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### 12.6. Other adverse effects

Comments, Ozone depletion potential	Ozone depletion potential not known
Comments, Photochemical ozone creation	Ozone formation potential not known
Comments Global warming potential	Global greenhouse effect not known

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Specify the appropriate methods of disposal	Dispose of waste and residues in accordance with local authority requirements. No specific disposal method required.
Relevant waste regulation	European Waste Inventory according to the Decision 2014/955/EU on the list of waste

Hazardous waste packing	Submit contaminated packagings to take-back systems or to a regulated recycling or disposal by an approved disposal company. Recommended waste key codes: 15 01 10* Packaging containing residues of or contaminated by hazardous substances
Product classified as hazardous waste	Yes
Packaging classified as hazardous waste	Yes
EWC waste code	EWC: 070601 aqueous washing liquids and mother liquors

## SECTION 14: Transport information

### 14.1. UN number

Comments No recommendation given.

### 14.2. UN proper shipping name

Comments No recommendation given.

### 14.3. Transport hazard class(es)

Comments No recommendation given.

### 14.4. Packing group

Comments No recommendation given.

### 14.5. Environmental hazards

Comments No recommendation given.

### 14.6. Special precautions for user

Special safety precautions for user No recommendation given.

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Product name No recommendation given.

### Additional information.

Additional information. The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

### ADR / RID - Other information

ADR Other information No recommendation given.

### ADN - Other information

Other information No recommendation given.

### IMDG / ICAO / IATA Other information

IMDG Other information No recommendation given.

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Detergents	Ingredients according to the Regulation on Detergents 648/2004: less than 5% amphoteric surfactants, non-ionic surfactants, limonene.
EEC-directive	Regulation (EC) No. 1907/2006 and Regulation (EC) 2015/830 The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.
References (laws/regulations)	Other UK regulations and guidances: Health and Safety at Work Act 1974. The Management of Health and Safety at Work regulations 1992. L5 Control of substances hazardous to Health. The Control of Substances

Hazardous to Health Regulations 2002. Approved codes of practice and guidance.  
 Guidance Note EH40 – Occupational Exposure Limits.  
 BS EN ISO 10882-1:2001 – health and safety in welding and allied processes – sampling of air-borne particles and gases in the operator's breathing zone – part 1: sampling of airborne particles.

## 15.2. Chemical safety assessment

Chemical safety assessment performed	No
Chemical Safety Assessment	No data recorded.
Exposure scenarios for mixture	No
Exposure Scenario Comments	No recommendation given.

## SECTION 16: Other information

Supplier's notes	The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.
Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]	Eye Irrit. 2; H319;
List of relevant H-phrases (Section 2 and 3).	H318 Causes Serious eye damage. H302 Harmful if swallowed. H412 Harmful to aquatic life with long lasting effects. H225 Highly flammable liquid and vapour. H319 Causes serious eye irritation.
Training advice	No information required.
Recommended restrictions on use	Not relevant.
User notes	In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material, as far as not expressly stated otherwise.
Version	1
Responsible for safety data sheet	Unger Germany GmbH